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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,829	02/25/2004	Takashi Chosa	B422-258	5062
26272	7590	01/24/2008	EXAMINER	
COWAN LIEBOWITZ & LATMAN P.C.			NEGRON, WANDA M	
JOHN J TORRENTE			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,829	CHOSA, TAKASHI	
Examiner	Art Unit		
Wanda M. Negrón	2622		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 25 February 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-21 is/are rejected.
7) Claim(s) 7 and 20 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 25 February 2004 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application
6) Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claim 7 recites, on page 3, lines 19-20, "without receiving the output of the stop of detecting means after the start of photographing". It is believed the recitation --without receiving the output of the detecting means after the start of photographing— also used in claim 8 was intended. Appropriate correction is required

Method claim 20 recites, "an memory interface of writing moving image data output in the image pickup step in a memory and for reading out the moving image data from the memory", which is not a method step. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-18 and 20-21 are rejected under 35 U.S.C. 112, second paragraph,
as being indefinite for failing to particularly point out and distinctly claim the
subject matter which applicant regards as the invention.

Claim 9 recites "the moving image data is written in the second memory while the first memory is changed to the second memory". The meaning of the recitation "while the first memory is changed to the second memory" is unclear.

Claim 10 recites "having an amount concerning detection timing performed by the detecting means". The meaning of this recitation is unclear.

Claims 12 and 20 recite the limitation "communicating means for transmitting the moving image data to an external device" and "communicating step of transmitting the moving image data to an external device", respectively. It is unclear whether the image data being transmitted is the image data from the memory or from the storage device. In addition, claim 12 recites, on page 4, lines 7-9, "and writing the moving image data output from the image pickup means in the storage device while the memory is changed to the storage device". Similarly, claim 20 recites, on page 10, lines 2-4, "and writing the moving image data output from the image pickup step in the storage device while the memory is changed to the storage device". The meaning of the recitation "while the memory is changed to the storage device" is unclear.

Claims 13 and 21 recite the limitation "the external device" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitations "the external device" in line 5, and "the retaining means" in line 7. There is insufficient antecedent basis for these limitations in the claim.

Any claim not specifically addressed above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todaka et al. (JP Application Publication No. 11-069305), hereinafter referred to as Todaka, and further in view of Porter et al. (US Application Publication No. 2003/0184662 A1), hereinafter referred to as Porter.

Regarding claim 1, Todaka discloses an imaging apparatus comprising image pickup means, i.e. a CCD image sensor (see paragraph [0013]); storing means (31) for storing moving image data output from the image pickup means, i.e. storing MPEG data (see paragraph [0010]); detecting means, i.e. system control means 51, for detecting that free space of a storage capacity of the storing means becomes not more than a predetermined amount (see paragraph [0014]); communicating means, i.e. file transfer means 4, for transmitting the moving image data to an external device, i.e. HDD of PC (see paragraph [0013], lines 7-8); and controlling means, i.e. system control means 51, for controlling the image pickup means and the communicating means according to output of the detecting means provided during photographing a series of the moving

image data so as to start to transmit the moving image data stored in the storing means to the external device (see paragraphs [0014] and [0017]). Todaka, however, does not explicitly teach transmitting the moving image data stored in the storing means to the external device while photographing the moving image data.

Porter, on the other hand, discloses photographing a moving image data (see paragraph [0037], last sentence) while transmitting stored image data (see paragraphs [0009] and [0038]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the capability for capturing image data while transferring stored image data, as taught by Porter, to the imaging apparatus taught by Todaka because having said capability would allow the user to capture images even when stored image data is being transmitted to an external device.

Regarding **claim 13**, an image data processing system comprising image pickup means, i.e. a CCD image sensor (see paragraph [0013]); storing means (31) for storing moving image data, i.e. storing MPEG data (see paragraph [0010]), output from the image pickup means; detecting means, system control means 51, for detecting that free space of a storage capacity of the storing means becomes not more than a predetermined amount (see paragraph [0014]); communicating means, i.e., file transfer means 4, for transmitting the moving image data; controlling means, i.e. system control means 51, for controlling the image pickup means and the communicating means so that, according to output of the detecting means provided during photographing a series of the moving image data, transmission of the moving image data stored in the storing

means to an external device, i.e. HDD of PC (see paragraph [0013], lines 7-8), is started (see paragraphs [0014] and [0017]); and saving means, i.e. HDD of PC (see paragraph [0013], lines 7-8), for saving the moving image data received by a receiving means. If a transmission is made from the imaging device to the PC's HDD, then it would be inherent to have a receiving means for receiving the moving image data transmitted. In addition, Todaka discloses that a serial port could be used to transmit image data to a PC, which reasonably suggests using a transmission line (see paragraph [0003]).

Todaka, however, does not explicitly teach transmitting the moving image data stored in the storing means to the external device while photographing the moving image data.

Porter, on the other hand, discloses photographing a moving image data (see paragraph [0037], last sentence) while transmitting stored image data (see paragraphs [0009] and [0038]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the capability for capturing image data while transferring stored image data, as taught by Porter, to the imaging apparatus taught by Todaka because having said capability would allow the user to capture images even when stored image data is being transmitted to an external device.

Regarding **claims 2 and 14**, Todaka as modified by Porter fails to explicitly disclose that the controlling means further controls the communicating means so that the communicating means outputs a control signal for saving the series of moving

image data transferred to the external device as one file in case of transmission operation of the series of moving image data. Official notice is taken that storing continuously-captured moving image data in one file is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the controlling means output a control signal for saving the series of moving image data transferred to the external device as one file because the user can reproduce sequential image data without having to read more than one file.

Regarding **claims 3 and 15**, Todaka as modified Porter discloses that, when transmission is performed at an optimum rate, after starting the transmission of the moving image data, image data from the image pickup is entered in the temporary buffer memory (see Porter, paragraph [0015]), which would inherently be controlled by a control means.

Regarding **claims 4, 6, 16 and 18**, official notice is taken that the concept and the advantage of having the controlling means display information for directing connection and showing the transmission status between an external device and a communicating means on a display device is well known in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to display information for directing connection between the external device and the communicating means on a display device, in the case where the external device and the communicating means are not connected to each other through a transmission line,

because the user could be informed of the status of the communication session connection and transmission.

Regarding **claims 5 and 17**, official notice is taken that the concept of disabling an image capture operation because the free space of the storing means has run out is well known in the art. In addition, it is inherent that transmission of the moving image data to an external device will not take place when the external device and the communicating means are not connected. It would have been obvious to one having ordinary skill in the art at the time the invention was made to disable the photographing operation when the free space of the storing means has run out because it would lower unnecessary power consumption.

Regarding **claims 7 and 8**, official notice is taken that the concept of having a pushbutton or the like on a video camera in order for the user to stop the image capture operation is old and well known in the art. Official notice is also taken that the concept and the advantage of having a writing means for reading out the moving image data stored in the storing means and writing the read-out moving image data in a storage device, e.g. a memory card, and the concept of storing in said storage device moving image data captured continuously as one file when there is sufficient free space is old and well known in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a directing means for directing stop of photographing and a memory card for storing continuously-captured image data as one

file when there is free space available for storage because the user could stop image capture when necessary, while storing the image data as a video clip that can be reproduced in its entirety without having to sequentially open more than one file.

Regarding **claim 9**, official notice is taken that the concept of an imaging apparatus comprising a first memory, e.g. a temporary memory, and a second memory, e.g. an external memory card requiring a memory interface, is old and well known in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was made to transfer the image data to a second memory as well as an external device, as described by Todaka as modified by Porter, since the user would have a backup file in case there is a transmission problem problem.

Regarding **claim 10**, official notice is taken that the concept of stopping data transmission in response to completion of the transmission is well known in the art. It is also well known in the art that a memory for buffering becomes full when the image capture rate exceeds the available data transfer rate for a period of time. Therefor, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a transmission rate faster than an image-capturing rate in order to prevent the storage means from becoming full, while transmission is stopped after completion in order to minimize wasted power consumption.

Regarding **claim 11**, Todaka as modified by Porter reasonably suggests that, after stopping the transmission of the moving image data, whenever the detecting means detects that the storage capacity becomes not more than the predetermined amount, the transmission of the moving image data stored in the storing means to the external device is again started, i.e. the transmission session is automatically started (see paragraph [0042]).

Method **claims 19 and 21** are drawn to the method of using the corresponding apparatus claimed in claims 1 and 13, respectively. Therefore method claims 19 and 21 correspond to apparatus claims 1 and 13, and are rejected for the same reasons of obviousness as used above.

Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todaka in view of Akutsu (JP Application Publication No. 10-145717), and further in view of Porter et al. (US Application Publication No. 2003/0184662 A1), hereinafter referred to as Porter.

Regarding **claim 12**, Todaka discloses an imaging apparatus comprising image pickup means, i.e. a CCD image sensor (see paragraph [0013]); an inherent writing means for writing moving image data, i.e. storing MPEG data (see paragraph [0010]), in a storage device (31); detecting means, system control means 51, for detecting that free space of a storage capacity of the storing means becomes not more than a

predetermined amount (see paragraph [0014]); communicating means for transmitting the moving image data, i.e. file transfer means 4, to an external device, i.e. HDD of PC (see paragraph [0013], lines 7-8); and controlling means, i.e. system control means 51, for according to output of the detecting means provided during photographing a series of the moving image data, starting to transmit the moving image data to the external device (see paragraphs [0014] and [0017]).

Todaka, however, fails to explicitly disclose a *memory interface* for writing moving image data output from the image pickup means in a *memory* and reading out the moving image data from the memory; and that the control means starts transmitting the image data stored in the memory *while photographing the moving image data* and controls *writing the moving image data output from the image pickup means in the storage device*.

The concept and the advantage of having a memory interface for writing moving image data output from the image pickup means in a memory and reading out the moving image data from the memory is well known in the art, as evidenced by Akutsu (see paragraph [0034]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a memory card interface to the imaging apparatus taught by Todaka for writing moving image data output from the image pickup means in a memory card and reading out the moving image data from the memory card because the user could store more image data using a portable memory device.

In addition, Porter discloses photographing a moving image data (see paragraph [0037], last sentence) while transmitting stored image data (see paragraphs [0009] and [0038]). Furthermore, Porter discloses that, when transmission is performed at an optimum rate, image data from the image pickup is entered in the temporary buffer memory (see paragraph [0015]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the capability for capturing image data while transferring stored image data, as taught by Porter, to the imaging apparatus taught by Todaka because having said capability would allow the user to capture and store images even when stored image data is being transmitted to an external device.

Method **claim 20** is drawn to the method of using the corresponding apparatus claimed in claim 12. Therefore method claim 20 corresponds to apparatus claims 12, and is rejected for the same reasons of obviousness as used above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kobayashi (US Patent No. 6,108,728) discloses a continuous recording system wherein the image data is transferred to a video server.
- Mizoguchi (US Patent No. 6,407,772 B2) discloses an image pickup apparatus wherein a detecting means detects the capacity of the recording medium.

- Ogino (US Patent No. 5,633,976) discloses an electronic camera wherein the rate of a continuous recording is reduced or interrupted on the basis of the remaining capacity of a memory.
- Ogino (US Patent No. 5,852,467) teaches an imaging device wherein a photographing operation is prohibited on the basis of a storable capacity of a temporary storage.
- Moronaga et al. (US Patent No. 5,473,370) teach an electronic camera comprising an internal memory and capable of receiving an external memory.
- Moghadam et al. (US Patent No. 5,917,542) disclose an image capture system wherein transmission is disabled when a successful transmission is not possible.
- Takei et al. (US Application Publication No. 2002/0057350 A1) teach a wireless receiving apparatus that controls image data recording on the basis of a wireless transmission status.
- Date (US Patent No. 6,833,860) discloses a camera apparatus wherein a temporary stored image data is transferred to a remote location.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda M. Negrón whose telephone number is (571) 270-1129. The examiner can normally be reached on Mon-Fri 6:30 am - 4:00 pm alternate Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wanda M. Negrón/

Examiner, Art Unit 2622
January 16, 2008



DAVID OMETZ
SUPERVISORY PATENT EXAMINER